



S/N 09/583,342

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Frederic Bushman et al. Examiner: Arun Chakrabarti, Ph.D.
Serial No.: 09/583,342 Group Art Unit: 1634
Filed: May 31, 2000 Docket: 1211.002US1
Title: METHOD OF IDENTIFYING INHIBITORS OF TOPOISOMERASE DNA
RELIGATION

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Commissioner for Patents
Washington, D.C. 20231

Sir:

In response to the Office Action mailed December 10, 2002, please consider the following remarks and amendments.

O.K. to enter
Arun Chakrabarti
3/26/03

Claim 19 (Withdrawn): The method of claim 18, wherein the pathogen is a virus, bacterium, fungus or parasite.

Claim 20 (Withdrawn): A kit for screening compounds that modulate topoisomerase religation activity comprising:

- (a) a substrate nucleic acid comprising a first tag,
- (b) a religation nucleic acid comprising a second tag and a 5'-OH,
- (c) a topoisomerase, and
- (d) a means for measuring a covalently linked product comprising (a) and (b) in a test mixture comprising (a), (b) and (c) in the presence or absence of a topoisomerase-modulating compound.

Claim 21 (Withdrawn): S. Taniguchi, H. Fujiki, H. Kobayashi, H. Go, K. Miyado, H. Sadano and R. Shimokawa. 1992. Effect of (-)-epigallocatechin gallate, the main constituent of green tea, on lung metastasis with mouse B16 melanoma cell lines. *Cancer Letters* 65, 51-54.

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Claim 22 (Previously Added): A method to identify a compound that modulates topoisomerase activity comprising:

- (a) incubating a reaction mixture comprising a substrate nucleic acid, a religation strand, a topoisomerase, and a candidate compound; and
- (b) assaying for ligation of the substrate nucleic acid and the religation strand.

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Claim 23 (Previously Added): A method to identify a compound that modulates topoisomerase activity comprising:

- (a) incubating a reaction mixture comprising a substrate nucleic acid, a topoisomerase, and a candidate compound; and
- (b) assaying for intramolecular ligation of the substrate nucleic acid to form a hairpin, a circular nucleic acid, or a multimer of the substrate nucleic acid.